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(54) **DIGITAL PWM CONTROL CIRCUIT**

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To enhance controlling performance, including following property and stability, to the characteristics and operation modes of a load.

**SOLUTION:** A digital PWM control circuit 1B, including an error amplifier, of digital control type is composed of a subtracter 1Ba that calculates the difference between two input signals to the error amplifier portion for controlling the duty ratio of PWM output signals, a first register 1Bb that holds the result of subtraction from the subtracter 1Ba, a computing unit 1Bc that calculates incremental/decremental data to an adder 1Bd according to the value from the first register 1Bb, the adder 1Bd that adds up the result of computation from the computing unit 1Bc and the output data from the adder 1Bd, and a second register 1Be that holds pulse-width data, the output data of the adder 1Bd. A counter portion (B) counts the data in the second register 1Be on a constant-period clock, and thereby the PWM control circuit outputs PWM signals.

